UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Christoph Becke et al.
Application Number:	10/582,923
Filing Date:	10/10/2008
Group Art Unit:	3637
Confirmation No.:	9209
Examiner:	Daniel J. Rohrhoff
Title:	COOLING DEVICE, AND CHILLED GOODS SUPPORT THEREOF

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Commissioner for Patents
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APPEAL BRIEF

Pursuant to 37 CFR §41.37, Appellants hereby file an appeal brief in the above-identified application. This Appeal Brief is accompanied by the requisite fee set forth in 37 CFR §41.20(b)(2).

Table of Contents

(1) REAL PARTY IN INTEREST

The real party in interest is BSH Bosch und Siemens Hausgeräte GmbH.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

Claims 1 – 10 are canceled. Claims 11-30 are pending in this application. The final rejection of claims 11-30 is being appealed. Claims 11, 21 and 29 are independent.

(4) STATUS OF AMENDMENTS

In response to the September 2, 2011, Final Office Action, Appellants filed a Notice of Appeal on October 14, 2011, along with a Pre-Appeal Brief Request for Review. The November 3, 2011, Decision from Pre-Appeal Brief Review indicated that the application remains under appeal. No Amendments are outstanding.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

A first exemplary embodiment, as defined by, for example, independent claim 11, is directed to chilled goods support (page 4, line 8; reference number 4, Figs. 1-4) for a cooling device comprising a liquid crystal temperature display (page 4, line 21; reference number 9, Figs. 2-7), wherein a supporting element (page 5, line 2; reference number 14, Figs. 5-6) of the chilled goods support acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner (page 2, lines 13-14).

Another exemplary embodiment, as defined by, for example, independent claim 21, is directed to a refrigerator comprising: a housing (page 4, line 1; Fig. 1) having side walls and a compartment (page 4, line 3; reference number 1, Fig. 1) disposed within the housing; a door (page 4, line 2; reference number 7, Fig. 1) coupled to the housing for opening and closing the compartment; a chilled goods support (page 4, line 8; reference number 4, Figs. 1-4) for supporting goods within the compartment and at least partially defining a region (page 4, line 7; reference number 5, Fig. 1) within the compartment, the chilled goods support extending between the side walls and including a front edge (page 5, line 2; reference number 14, Figs. 5-7) facing the door and having a downwardly sloping surface (Figs. 5 and 7); and a liquid crystal temperature display unit (page 4, line 21; reference number 9, Figs. 2-7) disposed on the sloping surface of the chilled goods support indicating the temperature within the region, wherein a supporting element of the chilled goods support acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner (page 2, lines 13-14).

Another exemplary embodiment, as defined by, for example, independent claim 29, is directed to a refrigerator comprising: a housing (page 4, line 1; Fig. 1) having side walls and a compartment (page 4, line 3; reference number 1, Fig. 1) disposed within the housing; a door (page 4, line 2; reference number 7, Fig. 1) coupled to the housing for opening and closing the compartment; a plurality of chilled goods supports (page 4, line 8; reference number 4, Figs. 1-4) extending between the side walls and spaced vertically apart from one another within the compartment, each chilled goods support at least partially defining a corresponding region (page 4, line 7; reference number 5, Fig. 1) above the respective chilled goods support and including a front edge (page 5, line 2; reference number 14, Figs. 5-7) with a downwardly sloping surface; a liquid crystal temperature display unit disposed on the downwardly sloping surface of each chilled goods support indicating the temperature within the corresponding region, each liquid crystal temperature display unit changing color in response to the temperature within the corresponding region (page 5, lines 5-8; reference number 17, Fig. 2) wherein the color of the liquid crystal temperature display unit indicates a type of chilled good

that is suitable to be stored on that respective chilled goods support (page 5, lines 10-11), wherein a supporting element of each of the plurality of chilled goods supports acts as a thermal buffer to which its liquid crystal temperature display unit is fixed in a planar manner (page 2, lines 13-14).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A) Whether claims 11-13, 15, 21-23 and 28 are unpatentable under 35 U.S.C. §102(b) over U.S. Patent Application Publication No. 2003/0122455 to Caldwell

B) Whether claims 14 and 16 are unpatentable under 35 U.S.C. §103(a) over Caldwell

C) Whether claims 17 and 24 are unpatentable under 35 U.S.C. §103(a) over Caldwell in view of U.S. Patent Application Publication No. 2003/0086474 to Hammarth et al.

D) Whether claims 18-20, 26 and 27 are unpatentable under 35 U.S.C. §103(a) over Caldwell in view of U.S. Patent No. 5,738,442 to Paron et al.

E) Whether claims 25, 29 and 30 are unpatentable under 35 U.S.C. §103(a) over Caldwell in view of Hammarth and U.S. Patent Application Publication No. 2003/0222044 to Maritan et al.

(7) ARGUMENT

A) Claims 11-13, 15, 21-23 and 28 are patentable under 35 U.S.C. §102(b) over U.S. Patent Application Publication No. 2003/0122455 to Caldwell

The Office Action rejected claims 11-13, 15, 21-23 and 28 under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent Application Publication No. 2003/0122455 to Caldwell. Appellants respectfully traverse the rejection.

i) Claims 11-13, 15, 21-23 and 28

Claims 11 and 21 include the feature of a supporting element of the chilled goods support acting as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner.

In contrast, Caldwell does not disclose, or even suggest, a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit. The Office Action states that frame 22 of Caldwell acts as a thermal buffer, but does not explain how this is the case or point to any passage of Caldwell that discusses a thermal buffer for the display. Appellants could not find any reference in Caldwell to thermal buffers for a temperature display.

Claims 12, 13, 15, 22, 23 and 28 depend from either claim 11 or claim 21.

In view of the foregoing, Appellants respectfully submit that Caldwell does not disclose each and every feature of claims 11-13, 15, 21-23 and 28 and, therefore, rejection under 35 USC §102(b) is inappropriate.

37 CFR 1.104(c)(2) states that the pertinence of each reference, if not apparent, must be clearly explained. It is not apparent how Caldwell discloses a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit. And, the Office Action does not clearly explain how Caldwell discloses a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit. As a result,

Appellants submit that the Office Action does not comply with 37 CFR 1.104(c)(2).

Because claim 11 has not been amended to overcome the rejection based on Caldwell, and because the Office Action does not comply with 37 CFR 1.104(c)(2), Appellants submit that if the claims are again rejected, the next Office Action should not be made final.

B) Claims 14 and 16 are patentable under 35 U.S.C. §103(a) over Caldwell

The Office Action rejected claims 14 and 16 under 35 U.S.C. §103(a) as being unpatentable over Caldwell. Appellants respectfully traverse the rejection.

i) Claim 14

As discussed above, Caldwell does not disclose, or even suggest, a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit. The Office Action asserts that Caldwell discloses a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit, but does not allege that Caldwell suggests such a feature. This obviousness rejection only asserts that Caldwell suggests the features of claims 14 and 16 that are not in claim 11.

ii) Claim 16

As discussed above, Caldwell does not disclose, or even suggest, a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit. The Office Action asserts that Caldwell discloses a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit, but does not allege that Caldwell suggests such a feature. This obviousness rejection only asserts that Caldwell suggests the features of claims 14 and 16 that are not in claim 11.

Further, claim 16 includes the feature of the liquid crystal display unit being back-molded with the support element. An example of this feature is shown in Fig. 5 where liquid crystal display unit 9 is back-molded with support element 11. This structure places liquid crystal display unit 9 in direct contact with support element 11. This direct contact aids in the

thermal buffering. Caldwell does not teach or suggest the claimed back-molding.

In view of the foregoing, Appellants respectfully submit that Caldwell does not teach or suggest the features of claims 14 and 16 and, therefore, rejection under 35 USC §103(a) is inappropriate.

C) Claims 17 and 24 are patentable under 35 U.S.C. §103(a) over Caldwell in view of U.S. Patent Application Publication No. 2003/0086474 to Hammarth et al.

The Office Action rejected claims 17 and 24 under 35 U.S.C. §103(a) as being unpatentable over Caldwell in view of U.S. Patent Application Publication No. 2003/0086474 to Hammarth et al. Appellants respectfully traverse the rejection.

i) Claims 17 and 24

Hammarth does not remedy the deficiencies of Caldwell.

As explained above, Caldwell does not teach or suggest the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit.

Indeed, the Examiner does not allege that Hammarth teaches or suggests the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit, as recited by claims 11 and 21, from which claims 17 and 24 respectively depend.

In view of the foregoing, Appellants respectfully submit that the combination of Caldwell and Hammarth does not teach or suggest the features of claims 17 and 24 and, therefore, rejection under 35 USC §103(a) is inappropriate.

D) Claims 18-20, 26 and 27 are patentable under 35 U.S.C. §103(a) over Caldwell in view of U.S. Patent No. 5,738,442 to Paron et al.

The Office Action rejected claims 18-20, 26 and 27 under 35 U.S.C. §103(a) as being unpatentable over Caldwell in view of U.S. Patent No. 5,738,442 to Paron et al. Appellants respectfully traverse the rejection.

i) Claims 18-20, 26 and 27

Paron does not remedy the deficiencies of Caldwell.

As explained above, Caldwell does not teach or suggest the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit.

Indeed, the Examiner does not allege that Paron teaches or suggests the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit, as recited by claims 11 and 21, from which claims 18-20, 26 and 27 depend.

In view of the foregoing, Appellants respectfully submit that the combination of Caldwell and Paron does not teach or suggest the features of claims 18-20, 26 and 27 and, therefore, rejection under 35 USC §103(a) is inappropriate.

E) Claims 25, 29 and 30 are patentable under 35 U.S.C. §103(a) over Caldwell in view of Hammarth and U.S. Patent Application Publication No. 2003/0222044 to Maritan et al.

The Office Action rejected claims 25, 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over Caldwell in view of Hammarth and U.S. Patent Application Publication No. 2003/0222044 to Maritan et al. Appellants respectfully traverse the rejection.

i) Claims 25, 29 and 30

Maritan does not remedy the deficiencies of Caldwell and Hammarth.

Claim 25 depends from claim 21.

Claim 29 includes the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit.

As explained above, the combination of Caldwell and Hammarth does not teach or suggest the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit.

Indeed, the Examiner does not allege that Maritan teaches or suggests the feature of a supporting element of a chilled goods support acting as a thermal buffer for a temperature display unit, as recited by claims 21 and 29, from which claims 25 and 30 depend.

In view of the foregoing, Appellants respectfully submit that the combination of Caldwell, Hammarth and Maritan does not teach or suggest the features of claims 25, 29 and 30 and, therefore, rejection under 35 USC §103(a) is inappropriate.

(8) CONCLUSION

In view of the foregoing discussion, Appellants respectfully request reversal of the Examiner's rejection.

Respectfully submitted,

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CLAIMS APPENDIX

1-10 (Canceled)

11. (Rejected) A chilled goods support for a cooling device comprising a liquid crystal temperature display, wherein a supporting element of the chilled goods support acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner.

12. (Rejected) The chilled goods support according to claim 11, wherein the thermal buffer is formed by a frame mounted on a plate of the chilled goods support.

13. (Rejected) The chilled goods support according to claim 12, wherein the liquid crystal temperature display unit is attached to an outer side of the frame oriented obliquely to the plate.

14. (Rejected) The chilled goods support according to claim 12, wherein a portion of the frame which supports the liquid crystal temperature display unit is an extruded profile.

15. (Rejected) The chilled goods support according to claim 12, wherein the frame is injection molded on the plate in one piece.

16. (Rejected) The chilled goods support according to claim 11, wherein the liquid crystal temperature display unit is back-molded with the supporting element.

17. (Rejected) The chilled goods support according to claim 11, wherein the liquid crystal temperature display unit is divided into a plurality of discrete elements, each of the

discrete elements having a different color change temperature at which that element changes color.

18. (Rejected) The chilled goods support according to claim 11, wherein the liquid crystal temperature display unit comprises a display zone in which a transition zone is continuously movable between a low-temperature color and a high-temperature color depending on temperature.

19. (Rejected) The chilled goods support according to claim 18, wherein reference marks are formed on the supporting element adjacent to the display zone.

20. (Rejected) The chilled goods support according to claim 18, wherein the cooling device comprises an interior enclosed by a heat-insulating housing.

21. (Rejected) A refrigerator comprising:

a housing having side walls and a compartment disposed within the housing;

a door coupled to the housing for opening and closing the compartment;

a chilled goods support for supporting goods within the compartment and at least partially defining a region within the compartment, the chilled goods support extending between the side walls and including a front edge facing the door and having a downwardly sloping surface; and

a liquid crystal temperature display unit disposed on the sloping surface of the chilled goods support indicating the temperature within the region,

wherein a supporting element of the chilled goods support acts as a thermal buffer to which the liquid crystal temperature display unit is fixed in a planar manner.

22. (Rejected) The refrigerator according to claim 21, wherein the chilled goods support includes a plate and a frame extending around the perimeter of the plate.

23. (Rejected) The refrigerator according to claim 22, wherein the plate is formed from a glass material and the frame is formed from a plastic material injection molded on the plate in one piece.

24. (Rejected) The refrigerator according to claim 21, wherein the liquid crystal temperature display unit is divided into a plurality of discrete elements that change color ~~change~~ in response to the temperature within the region.

25. (Rejected) The refrigerator according to claim 24, wherein the color of the liquid crystal temperature display unit indicates a type of chilled good that is suitable to be stored on the chilled goods support.

26. (Rejected) The refrigerator according to claim 21, wherein the liquid crystal temperature display unit comprises a display zone in which a transition zone is continuously movable between a low-temperature color and a high-temperature color depending on temperature.

27. (Rejected) The refrigerator according to claim 26, further comprising reference marks formed adjacent to the display zone.

28. (Rejected) The refrigerator according to claim 21, further comprising multiple chilled goods supports at least partially defining corresponding regions above each chilled goods support, each chilled goods support including a front edge with a downwardly sloping surface and a liquid crystal temperature display unit disposed on the sloping surface, the temperature display unit indicating the temperature within the corresponding region,

wherein a supporting element of each of the multiple chilled goods supports acts as a thermal buffer to which its liquid crystal temperature display unit is fixed in a planar manner.

29. (Rejected) A refrigerator comprising:

a housing having side walls and a compartment disposed within the housing;

a door coupled to the housing for opening and closing the compartment;

a plurality of chilled goods supports extending between the side walls and spaced vertically apart from one another within the compartment, each chilled goods support at least partially defining a corresponding region above the respective chilled goods support and including a front edge with a downwardly sloping surface;

a liquid crystal temperature display unit disposed on the downwardly sloping surface of each chilled goods support indicating the temperature within the corresponding region, each liquid crystal temperature display unit changing color in response to the temperature within the corresponding region wherein the color of the liquid crystal temperature display unit indicates a type of chilled good that is suitable to be stored on that respective chilled goods support,

wherein a supporting element of each of the plurality of chilled goods supports acts as a thermal buffer to which its liquid crystal temperature display unit is fixed in a planar manner.

30. (Rejected) The refrigerator according to claim 29, wherein at least one of the chilled goods supports includes a plate formed from a glass material and a frame extending around the perimeter of the plate and being formed from a plastic material injection molded on the plate in one piece.

EVIDENCE APPENDIX

None

RELATED APPEALS APPENDIX

None